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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/652,750	08/31/2000	Robert T. Baum	Bell-29	3522

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EXAMINER

NGUYEN, PHUONGCHAU BA

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/652,750

Applicant(s)

BAUM ET AL.

Examiner

Phuongchau Ba Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11-17-03 AF.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-15 and 20-30 is/are allowed.
- 6) ☒ Claim(s) 1-8, 16-19 and 31-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections – 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-4, 16-17, 31-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation "the received packets" in line 5. There is insufficient antecedent basis for this limitation in the claim.

Claims 16-17, 31-32 are rejected for depending on claim 1.

***Claim Rejections – 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1–2, 5–6, 31–33 are rejected under 35 U.S.C. 102(b) as being anticipated by Yacoby (5,088,090).

Regarding claim 1:

Yacoby discloses determining whether or not the packet is entitled to access a particular service using at least a portion of the unique bit string {fig.2, source routing identifier}, wherein the unique bit string is independent from layer 2 destination address {fig.2, destination address}; and if it is determined that the packet is entitled to access the particular service (source routing), then routing the packet (using source routing to the destination node, bridge 160; col.7, lines 29–47) {col.5, lines 49–59}.

Regarding claim 5:

Yacoby discloses a method for providing various quality of service levels to packets sourced from a number of client devices, each of the packets having at least a part of a layer 2 header replaced with a unique bit string that is independent of a layer 2 destination address, the method comprising

determining a service level (source routing or transparent routing) to which the packet is entitled using at least a portion (RI-source routing identifier, fig.2) of the unique bit string (source address, fig.2); and forwarding the packet to a queue (FIFO 172 at a LAN) associated with the service level determined {each packet when initiated in transmission having a rate predetermined therewith, as it is being transmitted to a destination node, Bridge 160 which had a FIFO 172 for storing the header of the packet, thus by using the source routing method (service level), the packet is stored at the FIFO 172 ---emphasis added}

Regarding claims 2 and 6:

Yacoby further discloses wherein at least a portion of the unique bit string represents one of a number of logical interfaces {col.1, lines 53-56; col.7, lines 29-47}

Regarding claim 31:

Yacoby further discloses determining whether or not the packet is entitled to access a particular service (e.g., use source routing technique or transparent technique, fig.3) using at least a portion (RI-routing source identifier, fig.2) of the unique bit string (source address, fig.2) is a separate determination from determining whether or not the packet can be forward {col.7, line 29–col.8, line 24, the path would be used to determine whether packet can be forwarded to the destination node, bridge 160, or not, and this process is different from whether to use source routing or transparent, because it determines the path availability in transmitting packets between source node and destination node---emphasis added, using the source routing technique to ensure proper searching and us of the right path to the right destination; also see col.6, lines 2–5 wherein the packet is being for validation for forwarding before checking the RI field}.

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Regarding claim 32:

Yacoby further discloses wherein the packet is routed only if it is determined that the packet is entitled to access (with logic is 1) the particular service (source routing method) {col.5, lines 49-56; col.6, lines 2-12}.

Regarding claim 33:

Yacoby further discloses wherein the service level is a quality of service level (predetermined transmitted rate of the packet) {each packet is transmitted at an inherent predetermined transmission rate (quality of service level) to a destination node, emphasis added, the packet would not be transmitted over a network to another without having the predetermined rate inherent therewith}.

***Claim Rejections – 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole

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would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3–4, 7–8, 16, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yacoby (5,088,090) in view of Allan (5,946,313).

Regarding claims 3 and 7:

Yacoby does not explicitly disclose the claimed invention. However, in the same field of endeavor, Allan discloses wherein at least a portion of the unique bit string corresponds to a virtual private network–organizational universal identifier {source MAC (OUI field 42), fig.1c}. Therefore, it would have been obvious to an artisan to apply Allan’s teaching into Yacoby’s system with the motivation being to avoid inadvertent duplication of MAC addresses and to ensure that conflicting MAC addresses do not exist, including the vendor’s OUI in the MAC address would ensure that the station implementing the fault–tolerant network interface in accordance with the present invention will not experience a MAC address conflict in the network within which the station is deployed.



**Regarding claims 4 and 8:**

Yacoby does not explicitly disclose the claimed invention. However, in the same field of endeavor, Allan discloses wherein at least a portion of the unique bit string corresponds to a virtual private network–INDEX {source MAC (ID field 44), figs.1c, 3a–b, and 6a}. Therefore, it would have been obvious to an artisan to apply Allan’s teaching into Yacoby’s system with the motivation being to switch cell accordingly to the reserved source and destination addresses (VPI/VCI 44).

7. Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yacoby (5,088,090) in view of Haddock (5,655,140).

**Regarding claims 16 and 18:**

Yacoby does not explicitly disclose the claimed features. Haddock (5,655,140) further discloses wherein the layer 2 (MAC) header is an Ethernet header (FDDI){fig.11}, wherein when the unique bit string replaces the at least a part of the layer 2 header a modified header is generated, and wherein a bit–size of the modified header is the same as that of the Ethernet header

{Haddock, col.26, lines 8–37}. Therefore, it would have been obvious to an artisan to apply Haddock's teaching of translated only the MAC header to generate a modified/translated frame format into Yacoby's layer 2 (MAC) header with the motivation being to provide communication between two end stations having different frame formats.

8. Claims 17 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yacoby (5,088,090) in view of Gage (6,035,405).

Regarding claims 17 and 19:

Yacoby does not explicitly disclose the claimed invention. However, in the same field of endeavor, Gage further discloses wherein at least a portion of the unique bit string represents a logical port identifier {col.1, line 43} including a geographic location identifier and a physical unit identifier {col.1, lines 45–48, 54–61}. Therefore, it would have been obvious to an artisan to apply Gage's teaching to Yacoby's system with the motivation being to determine where the end station in the VLAN.

9. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yacoby (5,088,090) as applied to claim 5 above, and further in view of Miyamoto (6,618,381).

Regarding claim 34:

Yacoby does not explicitly disclose the claimed feature. However, in the same field of endeavor, Miyamoto (6,618,381) discloses wherein the service level is a quality of service level represented by a plurality of bits {col.7, lines 1-3, 9-15, 28-32,; fig.7, col.7, 49-60; col.8, lines 47-51; step S13-fig.6; also figs.8-10}. Therefore, it would have been obvious to an artisan to apply Miyamoto's teaching to Yacoby's system with the motivation being to provide traffic control for assigning resources to guarantee the required QoS

***Allowable Subject Matter***

10. Claims 9-15, 20-30 are allowable over the prior art of the record.

*Response to Arguments*

11. Applicant's arguments filed 11-20-03 have been fully considered but they are not persuasive.

A/ . Applicant argued that Yacoby does not disclose "each of the packet having at least a part of a layer 2 header replaced with a unique bit string that is independent of the contents of the received packets".

In response to applicant's arguments, the recitation "each of the packet having at least a part of a layer 2 header replaced with a unique bit string that is independent of the contents of the received packets" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

B/. Applicant argued that Yacoby does not disclose “using at least a portion of the unique bit string”.

In reply, the Source Address in 6 bytes {fig.2} and the X (source routing identifier) is a portion of the Source Address (the unique bit string).

C/. Applicant argued that Yacoby does not disclose “forwarding the packet to a unique associated with the service level determined”.

In reply, forwarding the packet to a queue (FIFO 172 at a LAN) associated with the service level determined {each packet when initiated in transmission having a rate predetermined therewith, as it is being transmitted to a destination node, Bridge 160 which had a FIFO 172 for storing the header of the packet, thus by using the source routing method (service level), the packet is stored at the FIFO 172 ---emphasis added}

D/. Applicant argued that Yacoby does not disclose the unique bit string corresponding to a VPN-OUI or VPN-INDEX which Allan in combination would NOT teach the missing features, VPN-OUI or VPN-INDEX.

In reply, first, Allan discloses wherein at least a portion of the unique bit string corresponds to a virtual private network-INDEX {source MAC (ID field 44), figs.1c, 3a-b, and 6a}; second, Allan further discloses wherein at least a portion of the unique bit string corresponds to a virtual private network-organizational universal identifier {source MAC (OUI field 42), fig.1c}. Therefore, it would have been obvious to an artisan to apply Allan's teaching into Yacoby's system with the motivation being to avoid inadvertent duplication of MAC addresses and to ensure that conflicting MAC addresses do not exist, including the vendor's OUI in the MAC address would ensure that the station implementing the fault-tolerant network interface in accordance with the present invention will not experience a MAC address conflict in the network within which the station is deployed; and to switch cell accordingly to the reserved source and destination addresses (VPI/VCI 44).

E/. Applicant argued that Yacoby in combination with Allan does not teach “replace” as used in claim.

In response to applicant's arguments, the recitation “replaced” has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

G/. Applicant argued that Gage teaches away from using such measures for security, in claims 17–19.

In response to applicant's argument that “Gage teaches away from using measures for security”, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior

art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Also, Gage discloses wherein at least a portion of the unique bit string represents a logical port identifier {col.1, line 43} including a geographic location identifier and a physical unit identifier {col.1, lines 45–48, 54–61}. Therefore, it would have been obvious to an artisan to apply Gage's teaching to Yacoby's system with the motivation being to determine where the end station in the VLAN.

***Response to Amendment***

12. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.



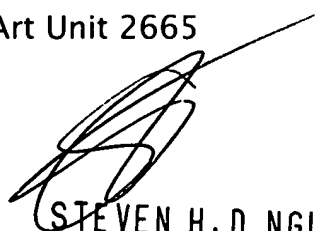
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuongchau Ba Nguyen whose telephone number is 703-305-0093. The examiner can normally be reached on Monday-Friday from 10:00 a.m. to 3:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 703-308-6602. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.



Phuongchau Ba Nguyen  
Examiner  
Art Unit 2665



STEVEN H. D. NGUYEN  
PRIMARY EXAMINER